



Common Name: SANDHILLS MILK-VETCH

Scientific Name: *Astragalus michauxii* (Kuntze) F.J. Hermann

Other Commonly Used Names: none

Previously Used Scientific Names: *Astragalus glaber* Michaux, *Tium michauxii* (Kuntze) Rydberg, *Tragacantha michauxii* Kuntze

Family: Fabaceae/Leguminosae (pea)

Rarity Ranks: G3/S2

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial **herb** with erect, usually solitary **stems** 1 - 3¼ feet (30 - 100 cm) tall. **Leaves** up to 6 inches (15 cm) long, alternate, with 21 - 31 oval or oblong **leaflets**, ¼ - 1 inch (6 - 25 mm) long, thick or leathery, sometimes thinly hairy, leaflets both opposite and alternate. **Flower clusters** arise at the angles between the stem and the upper 2 - 6 leaves, with 10 - 40 flowers per cluster. **Flowers** ½ - ¾ inch (12 - 18 mm) long, pale purple, typical of pea flowers with an erect banner petal and 2 wing petals enclosing the keel petal. **Fruit** a smooth, leathery, upcurved pod, about 1 inch (2 - 3 cm) long and ¼ inch (4 - 6 mm) wide.

Similar Species: Hairy milk-vetch (*Astragalus villosus*) is a sprawling, mat-forming plant with densely hairy stems and yellowish flowers. Goat's-rue (*Tephrosia virginiana*) occurs in multi-stemmed clumps; its flower cluster is at the top of the main stem, and the flowers are pink and cream.

Related Rare Species: Canada milk-vetch (*Astragalus canadensis*, Special Concern) occurs along one roadside in Dade County, over limestone bedrock. It is an erect plant with creamy-yellow flowers; pods are about ½ inch (1 - 1.5 cm) long, upcurved, with a rough, leathery surface.

Habitat: Longleaf pine-wiregrass sandhills, pine woodlands, turkey oak-rosemary scrub.

Life History: Other species of milk-vetch are pollinated by several species of bumble bees and solitary bees, as well as flies; it is likely that these pollinate sandhill milk-vetch. Seeds of sandhill milk-vetch have tough outer and inner coats that slow down or prevent germination. Fire improves germination by breaking down the seed coats; fire also reduces competition from other species. Populations studied in North Carolina had very low fruit set – 92% of flowers withered without producing pods. Seeds are dispersed when the pods open at the tips. Many members of the genus *Astragalus* produce toxins and are known as locoweeds; sandhill milk-vetch produces miserotoxin, which may produce severe respiratory distress, weakness, coma, and death in cattle that eat it.

Survey Recommendations: Surveys are best conducted during flowering (May–June) and fruiting (June–October).

Range: Georgia, Florida, Alabama, South Carolina, and North Carolina.

Threats: Fire suppression in sandhills, pine straw raking, conversion of sandhill habitat to pine plantations and developments.

Georgia Conservation Status: A total of 22 populations have been observed but most of these have not been seen in more than 30 years; of the 8 currently known populations, only 4 are protected on conservation lands.

Conservation and Management Recommendations: Apply prescribed fire early in the growing season every 2 - 3 years, before plants flower. Prevent pine straw raking and other ground disturbances. Protect sandhills and scrub from development and conversion to pine plantation and agriculture.

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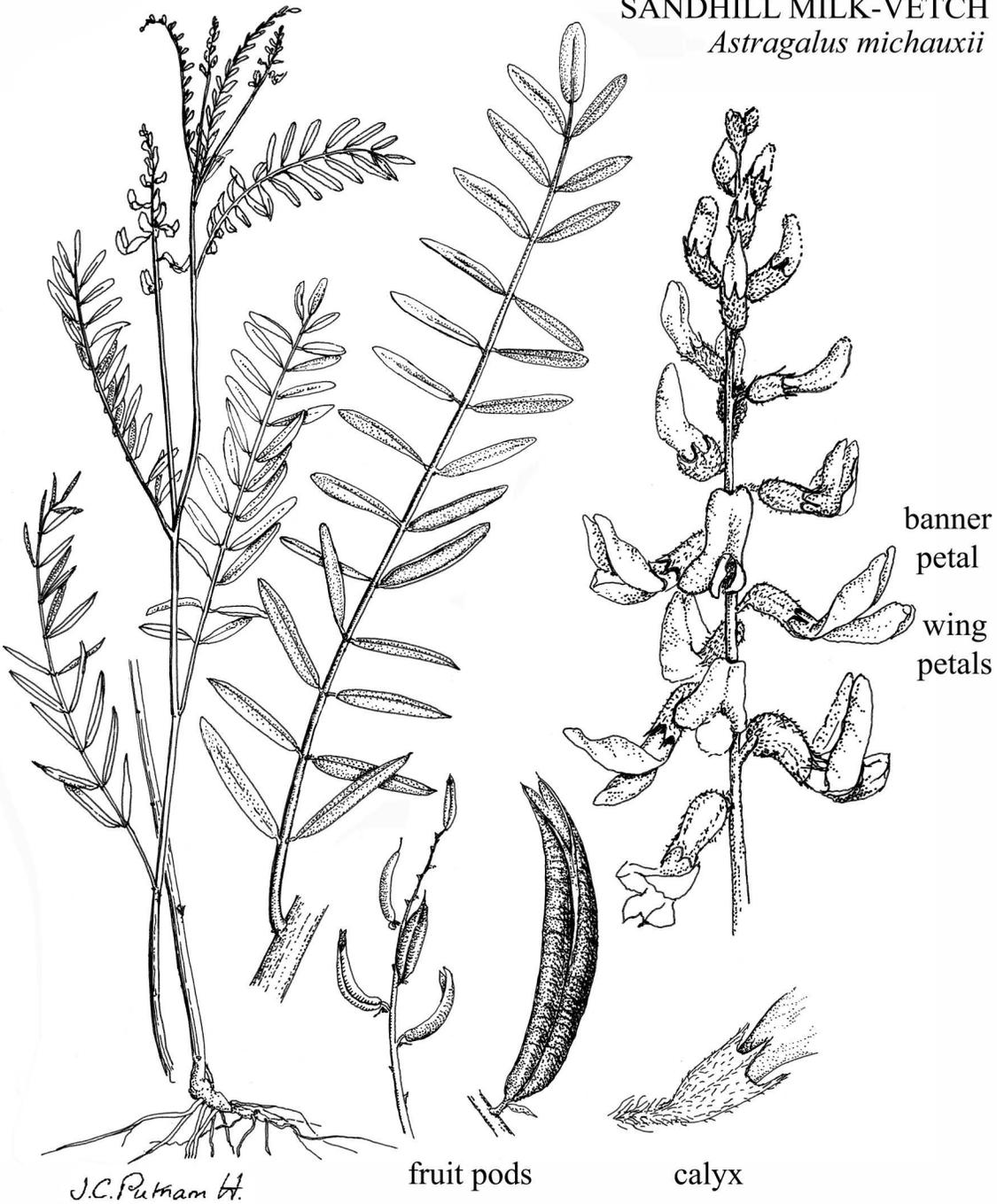
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Date Compiled or Updated:

L. Chafin, Aug. 2007: original account

K. Owers, Jan. 2010: updated status and ranks, added pictures

SANDHILL MILK-VETCH
Astragalus michauxii



J.C. Putnam H.

fruit pods

calyx

banner
petal
wing
petals